EAST KENTUCKY POWER COOPERATIVE

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PUBLIC SERVICE COMMISSION

August 29, 2003

VIA FEDERAL EXPRESS

Mr. Thomas M. Dorman
Executive Director
Public Service Commission
211 Sower Boulevard
Frankfort, KY 40602

Re: PSC Case No. 2003-00051

Dear Mr. Dorman:

Please find enclosed for filing with the Commission an original and ten copies of the responses of East Kentucky Power Cooperative, Inc. ("EKPC") to the Information Requests made at the August 19, 2003 informal conference in this case by the Attorney General and the Kentucky Division of Energy.

Very truly yours,

Sherman Goodpaster III
Senior Corporate Counsel

sg/ln
enclosures
c: Parties of Record

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EAST KENTUCKY POWER COOPERATIVE, INC.

PSC CASE NO. 2003-00051

IRP INFORMATION REQUEST RESPONSE

COMMISSION STAFF'S REQUEST FROM INFORMAL CONFERENCE DATED 8/19/03

In response to the following Public Service Commission's informal conference request for information, East Kentucky Power Cooperative, Inc. ("EKPC") submits responses to the requests contained therein.

REQUEST 1

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2003-00051
IRP INFORMATION REQUEST RESPONSE

INFORMAL CONFERENCE REQUEST - 8/19/03
REQUEST 1
RESPONSIBLE PARTY: James C. Lamb

REQUEST 1. Information is needed regarding the commercial lighting program.

RESPONSE 1. In 1992 and 1993 the possibility of offering a commercial lighting retrofit program to EKPC member systems' customers was investigated. It was hoped that we would be able to provide a monetary incentive to retail customers. In order to provide an incentive, the criteria at the time was that the amount of revenue lost by reduced sales of energy had to be less than the cost avoided in reducing the need for additional combustion turbine capacity. Because commercial lighting has a fairly high load factor, there was more lost revenue than there was avoided cost. Because of this a formal program was not undertaken.

However, EKPC member systems felt that it was good for customers, and more efficient, if commercial customers were able to retrofit any inefficient lighting fixtures. Because of this EKPC worked with a lighting contractor and put together a program whereby, if a commercial customer wanted to retrofit their lighting, member systems could provide accurate costs and benefits as well as a resource for accomplishing the retrofit. The way this works is that a contractor has given member systems a unit cost sheet, which allows the member systems to provide the customer with accurate costs. Because lighting energy use is easy to calculate, member systems are also able to give the customer an

accurate estimate of how much money they would save. This all takes the form of a simple spreadsheet (attached)

EKPC member systems perform numerous lighting audits for customers and use this spreadsheet to provide the costs and benefits. To date, only two customers that we know of have performed a retrofit. We believe there is a number of other customers that have used the information the member systems has given them as the basis for justifying the use of energy efficient replacements when a ballast goes bad.

Commercial customers have reported to EKPC member systems that the payback period for a whole facility retrofit is too long (>2 years) for them to justify taking this action. EKPC member systems continue to provide audits when requested by customers.

Cust.: A real customer

Demand Charge $5.93 per kW
Energy Charge 3.240 cents per kWh

# Units	Existing Fixture	System Watts	Retrofit	System Watts	Watts Savings	Unit Cost	Total Cost	#	Weekly Hours	Annual Savings	Ballasts non-PCB?
	1x2 2 lamp	50	2 T8 lamps/ballast	33	17	$33.80					
	1x3 2 lamp	72	2 T8 lamps/ballast	48	24	$35.00					
	1x4 1 lamp	41	1 T8 lamp/ballast	40	1	$30.75					
	1x4 2 lamp	82	2 T8 lamps/ballast	59	23	$32.50			168		
	1x4 3 lamp	125	3 T8 lamps/ballast	87	38	$36.25					
	1x4 4 lamp	164	4 T8 lamps/ballast	114	50	$39.00					
	2x4 3 lamp	125	2 T8 lamps/ballast/reflector	59	66	$46.00					
100	2x4 4 lamp	164	2 T8 lamps/ballast/reflector	59	105	$46.00	$4,600.00		168	$3,718.58	Yes
	1x8 1 lamp strip	78	2 T8 lamps/ballast BDK	59	19	$51.00					
	1x8 2 lamp strip	142	4 T8 lamps/ballast BDK	114	28	$57.50			168		
	1x8 2 lamp industrial	142	4 T8 lamps/ballast BDK	114	28	$57.50					
	1x8 2 lamp HO	228	4 T8 lamps/ballast BDK	114	114	$57.50					
	2x2 2 lamp u-bend	82	2 lamp T8/ballast/reflector	33	49	$44.00					
	75 watt incandescent	75	15 watt CFL	15	60	$21.00					N/A
	100 watt incandescent	100	23 watt CFL	23	77	$21.00					N/A
	150 watt incandescent	150	32 watt CFL	32	118	$24.00					N/A
	Exit 2/20 watt incandescent	40	LED retro	3	37	$35.00					N/A
	Exit 2/20 watt incandescent	40	New LED w/battery back-up	3	37	$82.00					N/A
	250 watt Mercury or Metal Halide	285	New 175 watt Metal Halide	185	100	$30.00					
	400 watt Mercury or Metal Halide	455	New 250 watt Metal Halide pulse	285	170	$250.00					
100	400 watt Mercury or Metal Halide	455	New 320 watt Metal Halide pulse	355	100	$250.00	$25,000.00		168	$3,541.51	
	400 watt Mercury	455	Adder for restrike	355	100	$45.00					N/A
	1x4 2 lamp	82	New 1x4 T8 2 lamp wrap	59	23	$61.50					
	2x4 4 lamp trouffer	164	New 2x4 T8 3 lamp trouffer	87	77	$78.00					
	2x4 3 lamp trouffer	125	New 2x4 T8 2 lamp trouffer	59	66	$75.00					
	Exit 2/20 watt incandescent	40	New Exit w/battery	3	37	$82.00					N/A

Sub-total $29,600.00

		Mobilization	$100.00	
Use customer's dumpster for fixture disposal?	yes	Dumpster rental	$0.00	
Is the working height 30' or more?	no	Lift rental	$0.00	If customer will supply lift answer "no"
		PCB ballast disposal	$150.00	
Will the owner dispose of the lamps?	No	Lamp disposal	$240.00	

Totals **Costs** **$30,090.00** **Savings** **$7,260.09**

Simple payback **50 Months**

REQUEST 2

EAST KENTUCKY POWER COOPERATIVE, INC.
PSC CASE NO. 2003-00051
IRP INFORMATION REQUEST RESPONSE

INFORMAL CONFERENCE REQUEST - 8/19/03
REQUEST 2
RESPONSIBLE PARTY: James C. Lamb

REQUEST 2. Information is needed on a comparison analysis of alternative fuels regarding the water heater retrofit program.

RESPONSE 2. The merits of EKPC's Electric Water Heater Retrofit Program were questioned during the informal conference held on August 19. Specifically, the Participant Test and the Societal Test were mentioned as being less than 1. The Distribution RIM Test was mentioned as being greater than 1. Each test result is addressed below:

Participant Test

The DSMANAGER case filed in the IRP reports a Participant Test of 0.77. A key assumption in this particular program is the retail price of natural gas. If this test were to be recomputed using today's retail price of natural gas, it would have a benefit cost ratio greater than 1.0. As noted during the informal conference, the price of natural gas is very volatile – such volatility results in wide fluctuations regarding the measurement of this particular test.

Societal Test

The DSMANAGER case filed in the IRP reports a Societal Test of 0.44. As noted in the second set of questions, DSMANAGER has an embedded assumption of using the wholesale price of natural gas rather than the retail price of natural gas. When the retail price is employed in calculating the benefits and costs of this test, the ratio increases to 0.89. While still less than 1, the Societal Test is much higher than before.

Distribution RIM Test

This ratio is 1.37 in the filed IRP, and is greater than 1 for the following reason – the program is a fuel switching program, in that natural gas water heaters are targeted for replacement with high efficiency electric water heaters. Under such a program, EKPC member distribution companies sell more kWh than they would otherwise, and electric revenue and gross margins both increase. Given a TRC Test ratio of 1.0, a Societal Test ratio of .89, and given that volatile natural gas prices can cause large swings in the Participant Test benefit cost ratio, EKPC does not believe that the RIM Test ratio is counterproductive to the overall benefits of this program.